

Utah Generated Renewable Energy Electricity Network



GOED Board Meeting

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Salt Lake City, Utah

Yashoda Khandkar
Special Advisor, UGREEN
ykhandkar@utah.gov
801-580-6519



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Mission Statement

- **“Provide funding mechanisms to develop transmission infrastructure projects to bring renewable energy resources to market and thereby contribute to the economy of the State and the communities where the projects are located”**
 - **Adopted by the UGREEN Board on May 18, 2010**

Utah Generated Renewable Energy Network Authority Board (UGREEN)

- Created by Senate Bill 76 in April 2009 by the Utah State Legislature
 - Senate Sponsor: Curtis Bramble (R)
 - House Sponsor: Roger Barrus (R)
- No fiscal note, funded by American Recovery and Reinvestment Act (Stimulus) funds through SEP
- UGREEN is housed within the Governor's Office of Economic Development (GOED)
- Hired "Special Advisor" in April 2010

UGREEN Board Composition

- UGREEN Authority is governed by a Board
 - The Board is composed of **seven** members from organizations/ backgrounds outlined in SB76
1. **Governor's Office of Economic Development (Chair)**
Spencer Eccles, GOED, *Executive Director*
 2. **Investor Owned Electric Company:**
Doug Bennion, PacifiCorp, *Vice President*
 3. **Wholesale Electric Corporation:**
Bob Dalley, Deseret Power, *Vice President & CFO*
 4. **Electric Interlocal:**
Leon Pexton, Utah Municipal Power Authority, *General Manager*
 5. **Renewable Energy Company:**
Richard Clayton, Raser Technologies, *Executive Vice President*
 6. **State Institutional Trust Lands Board:**
Kevin Carter, SITLA, *Executive Director*
 7. **Member of the Public:**
Ryan Davies, Renewable Energy Development Corporation, *President & CEO*

UGREEN's Responsibilities

- To review the location and availability of renewable energy sources
- To determine if there is adequate transmission infrastructure to bring renewable energy sources to market
- **Provide bond financing to connect renewable energy resources to market**

Qualifying Transmission Projects

The Board must determine that the project:

- **Contributes to the economy of the state and community**
- Is strategically situated to maximize connections to renewable energy sources (those sources can be existing, under construction, planned, or foreseeable)
- Is supported by a business case for providing revenue to service a bond and finance the construction and operation of a transmission project
- Is supported by a transmission project plan (related to engineering, environmental issue, energy production, load capacity, other issues related to building and operating a transmission line)
- Complies with all appropriate laws and regulations regarding building and operating a transmission line or connection

UGREEN Bonds

- UGREEN bonds are NOT general obligation bonds, they are “pass through” bonds
- The state or its political subdivisions are not liable for an obligation, expense, debt, or liability of the Authority
- The principal and interest on a UGREEN bond may be payable from:
 - Income and revenues from a qualifying transmission project financed with the bond proceeds
 - Income and revenues from public or private sources
 - A contribution, loan, grant, or other financial assistance from a public entity or any other source
 - Authority revenues generally

Indicative Economics- 200 MW Wind Farm

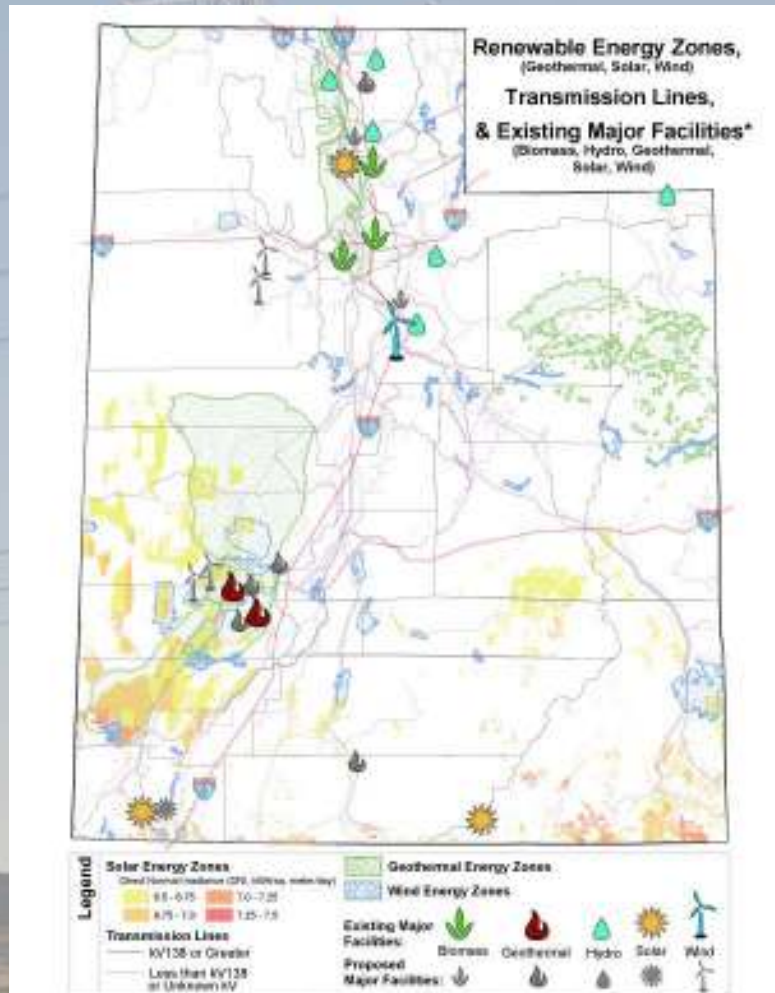
Savings via UGREEN (1)

	Base Case	5%	10%	15%
	Capital Costs (\$M)			
20 MW Wind Farm	\$400.00	\$400.00	\$400.00	\$400.00
50 Mile Gentie	<u>25</u>	<u>23.75</u>	<u>22.5</u>	<u>21.25</u>
Total	\$425.00	\$423.75	\$422.50	\$421.25
Savings (\$)		\$1.25	\$2.50	\$3.75
<i>Percent Savings</i>		0.29%	0.59%	0.88%

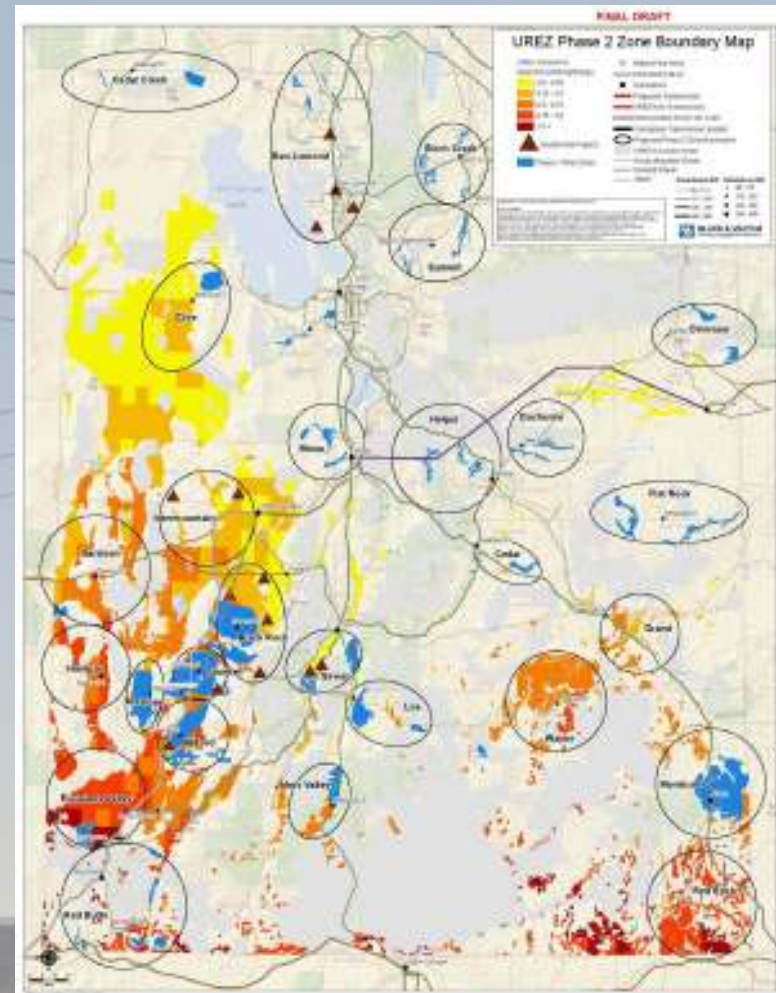
	Power Price (\$/MWh)			
20 MW Wind Farm	\$51.76	\$51.76	\$51.76	\$51.76
50 Mile Gentie	<u>3.24</u>	<u>3.08</u>	<u>2.92</u>	<u>2.75</u>
Total	\$55.00	\$54.84	\$54.68	\$54.51
Savings (\$/MWh)		\$0.16	\$0.32	\$0.49
<i>Percent Savings</i>		0.29%	0.59%	0.88%

(1) Reduction in transmission costs due to lower cost of capital

Utah Renewable Energy Zones



Phase I: Identification of Utah's renewable energy resource potential and establishment of REZs



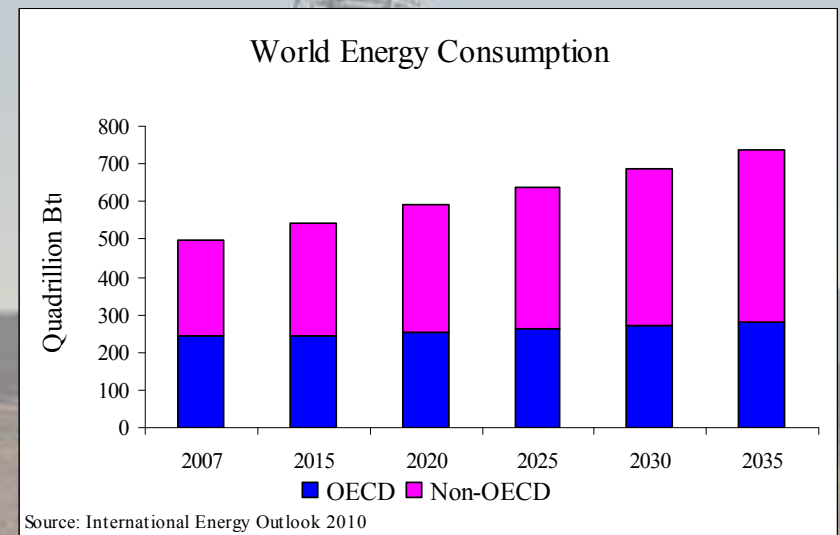
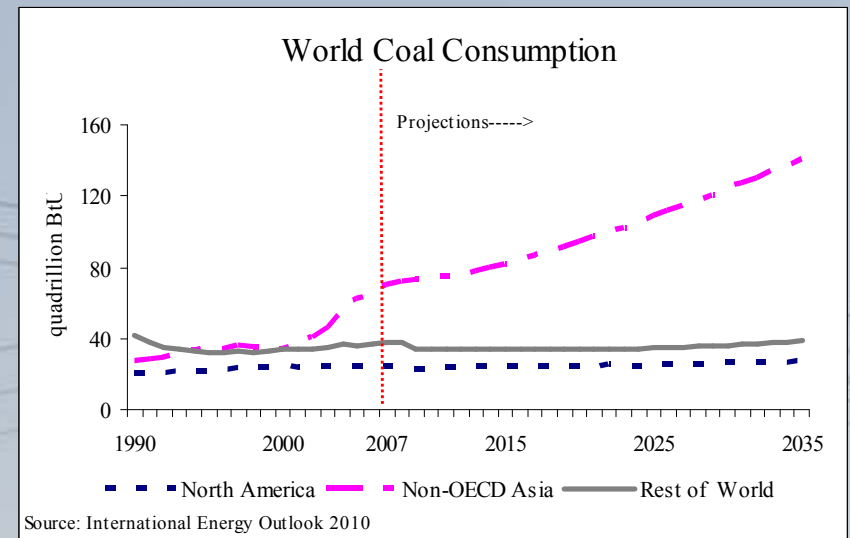
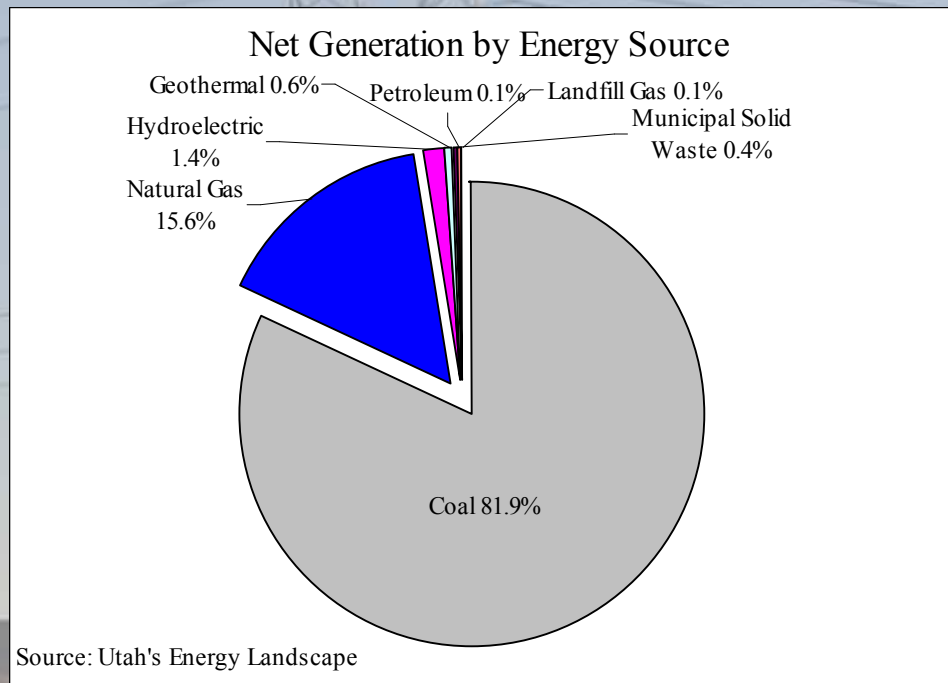
Phase II: Analysis of transmission requirements to connect potential renewable resources to grid

Projects/Companies

- Italian Geothermal
 - 28 MW in Beaver County
- Spanish Utility
 - 50 MW Solar in NE Utah
- French Renewable Energy Developer
 - 50 MW Wind in SW Utah
 - 75 MW Solar in SW Utah
- Large Regulated US Utility
 - 100 MW Wind in Central/Eastern Utah
- International Renewable Energy Developer
 - 100 MW Solar in SW Utah

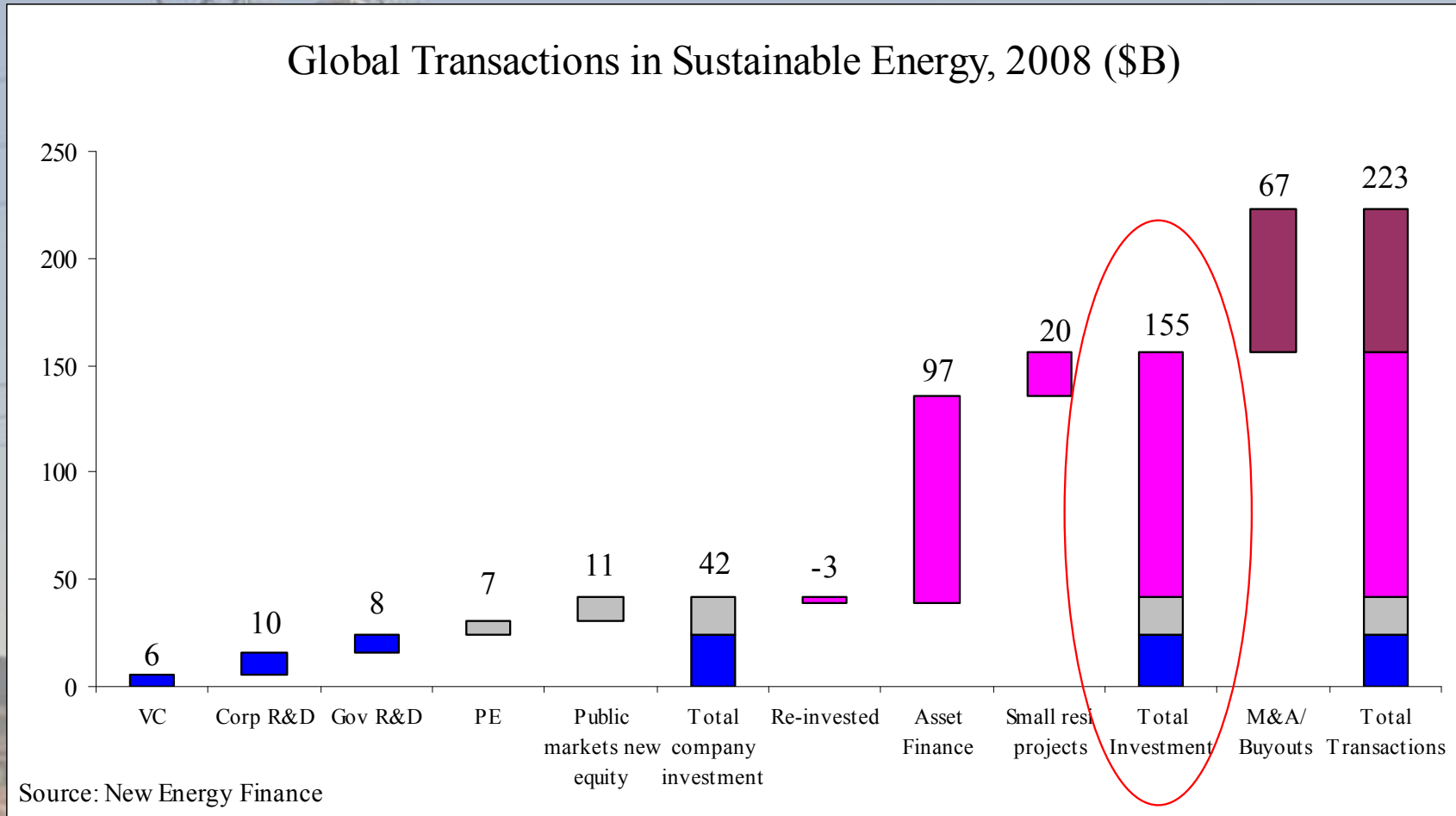


Utah's energy mix in the context of global trends



Sustainable Energy is a \$155B industry

What is Utah's share of the pie?



UGREEN's key accomplishments over the last six months

- Defined and established the organizational and structural framework within which to operate
 - Includes defining Project Selection Criteria and Evaluation Procedures
 - Draft Business Plan and Strategic Vision
- Issued first Letter of Support to PurpleEnergy, a company pursuing hybrid solar-geothermal technologies in southwestern Utah
- Organized and convened multi-state infrastructure authority meeting: CO, WY, NM, and Kansas
- Selected to staff the Governor's Energy Initiative's Transmission, Infrastructure, and Transportation Subcommittee tasked with writing Utah's 10 Year Strategic Energy Plan

Goals for next six months

- Securing funding to continue UGREEN's existence after ARRA funding expires next summer
 - Includes pursuing federal appropriations, state budget increment, legislative amendment to include fiscal note...
- Encourage developers to apply for UGREEN's various mechanisms of support
 - Find suitable candidate for UGREEN bond financing
- Lead and participate in regional state infrastructure initiatives
 - Legislation for federal tax exemption?
- Continue to lend support and expertise to State of Utah on renewable energy development



Contact Information

Yashoda Khandkar

Special Advisor

324 S. State Street, Suite 500

Salt Lake City, Utah 84111

ykhandkar@utah.gov

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www.business.utah.gov/UGREEN